

## Rockville City Police Safe Speed Program Evaluation 2011



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#### Purpose

The purpose of this report is to provide an update on the Rockville City Photo Speed Enforcement Program. A comprehensive program evaluation was completed in July 2009, and this report is meant to supplement the original report by comparing the first 20-months of data (March 2007 through September 2009) to the most recent 20-months of data (October 2009 through May 2011).

#### **Background**

In January 2006, the Maryland General Assembly authorized the use of speed monitoring systems throughout Montgomery County as a pilot program. The state legislation authorized the use of photo-radar speed monitoring systems on residential streets and in school zones, where the posted speed limit was 35 miles per hour or less. Violations could be issued if the vehicle speed exceeded the posted limit by more than 10 mph. The county was required to collect the fees for all citations that were issued by any Safe Speed Program operated in the county; the revenues from the citations were then remitted back to the municipalities that operated the program.

#### **Significant Changes**

During the 2009 session of the Maryland General Assembly, the State Senate, at the request of Governor O'Malley, introduced Senate Bill 277 to authorize the statewide use of speed cameras in school zones and highway work zones. The General Assembly approved Senate Bill 277 in April 2009. The Governor signed Senate Bill 277 into law

as Chapter 500 of the 2009 Laws of Maryland in May 2009. The law had an effective date of October 1, 2009.

The table below provides an overview and summarizes the major differences between the 2006 and 2009 State speed camera laws.

Major Differences between the 2006 and 2009 State Speed Camera Laws

	2006 Law	2009 Law
Authority to use speed cameras	Montgomery County only (to include the cities of Rockville, Gaithersburg, Takoma Park, and the Village of Chevy Chase)	Statewide
Location of speed cameras	<ul><li>School zones; and</li><li>Residential districts</li></ul>	<ul> <li>School zones;</li> <li>Residential districts;</li> <li>(Montgomery County only); and</li> <li>Highway work zones</li> </ul>
Hours of operation	No restrictions	School zone cameras restricted to 6 a.m. to 8 p.m., Monday - Friday
Violation threshold	At least 10 mph over posted speed limit	At least 12 mph over posted speed limit
Local authorization	None required	For each new speed monitoring system:  • Public hearing; and • City ordinance or resolution
Use of Revenues	<ul> <li>Limited to "related public safety purposes"; and</li> <li>"May not supplant existing local expenditures for the same purpose"</li> </ul>	Limited to "public safety purposes"
Approvals	Authorized agents of the police department (civilians)	Duly authorized law enforcement officer (sworn)
Revenue Collection	Montgomery County had to collect all fines and fees	Each municipality can collect their fines and fees

The 2006 law allowed for the use of automated speed enforcement on roads in school zones or in residential districts with a maximum speed limit of 35 miles per hour or less. The 2009 State law authorizes speed cameras in school zones but not in residential

districts. However, the law allows speed cameras to continue to operate in residential districts in Montgomery County.

The 2006 law did not limit speed camera hours of operation. The 2009 law limits the operation of school zone speed cameras from 6:00 A.M. to 8:00 P.M., Monday through Friday. The 2009 law does not limit hours of operation for work zone speed cameras or residential district speed cameras located in Montgomery County.

The 2006 law allowed Montgomery County (and participating County municipalities) to photograph vehicles and issue citations for vehicles that exceeded the posted speed limit by at least ten miles per hour. The 2009 amendment to the State law restricts photographing vehicles and issuing citations to vehicles exceeding the posted speed limit by at least 12 miles per hour.

#### **Program Update**

Since the first program evaluation was completed (July 2009), the photo speed program has grown and changed in some ways. The city added two additional speed monitoring systems to the program for a total of twelve (12) cameras. The two new systems were built out as portable camera units (PCU's). These systems are housed in steel cabinets and are powered by batteries. Portable camera units allow the program to address speeding concerns on roadways that our previous systems could not (i.e., roadways that are narrow or due to other configurations do not allow us to park a vehicle legally on the side of the road). Portable camera units also allow us to deploy on roadways that cannot support the infrastructure needed to install fixed pole cameras.

During 2010, the City noticed a dramatic increase in motorist compliance with the posted speed limits at two fixed camera locations (2100 block Baltimore Road and 400 block Redland Boulevard). As a result, the speed monitoring systems located at these sites were removed from their fixed pole housings and converted into PCUs. The fixed poles still remain at these two sites and provide a visible deterrence to would be speeders. If speeding becomes an issue at these two sites, then we are able to deploy the PCU's quickly to address the issue.

Also in 2010, the program expanded the number of site locations and roadways that we can deploy our speed monitoring systems on (see Attachment 1). This was due in part to the flexibility of the PCUs. With this program expansion, the City is now able to monitor speeds on roadways in front of (or near) every public school within the city limits of Rockville. By identifying more roadways, and with the flexibility of the PCUs, we have been able to create a "corridor" effect around school zones and on several residential streets. Anecdotal evidence indicated that after motorists became aware of our originally established photo enforcement sites, they would slow down, and then speed up. Using PCU's on a rotating basis at various locations along the same section of roadway and on nearby roadways, we have almost created a "net" of enforcement zones around the city. As a result, motorists are changing their driving habits.

#### **Program Analysis**

A successful Safe Speed Program is measured through a reduction in overall speeds, a reduction in the number of vehicles speeding, and a reduction in the number of speeding-related accidents. Due to the length of time mobile units operate at any given site, specific portions of this report focus on data collected from fixed pole camera sites only. The "Safe Speed Program Evaluation" conducted in July 2009 analyzed 20 full months of data. On October 1, 2009, House Bill 277 was enacted and affected the speed camera program in many ways. As a result, this report will analyze data collected during the first 20-months of the program and the last 20-months of the program (after October 1, 2009).

#### Note on Interpreting the Data

This section reviews data on changes in driver behavior and roadway safety that coincided with the implementation of the Safe Speed program. Factors other than speed cameras, such as weather conditions, roadway conditions, and traffic volumes, may also have influenced the data trends presented in this report. Therefore, while the data show a correlation between implementation of the Safe Speed program and changes in driver behavior and roadway safety, the city cannot assert that the program was the sole cause for these changes.

#### Speed Breakdown by Location

During the first 20-months of the program, there were three roadways monitored by six fixed pole cameras. These roadways were the 2100 block of Wootton Parkway, the 400-600 blocks of W. Montgomery Avenue, and the 2100 block of Baltimore Road.

At the Wootton Parkway sites, there were 2,183 motorists exceeding the speed limit by at least 20 mph during the first 20 months of the program. Of those speeding, 77 were over 30 mph, and another 25 were over 40 mph. During the last 20 months of the program, on the same roadway, there were only 165 motorists exceeding the speed limit by 20 mph, and only one was over 30 mph.

West Montgomery Avenue experienced similar reductions in speeds. During the initial evaluation period, 463 motorists were recorded travelling over 20 mph. Of those speeding, 29 were over 30 mph, and another 7 were in excess of 40 mph. During the last 20 months of the program, West Montgomery Avenue only had 197 motorists over 20 mph. There were only 10 motorists in excess of 30 mph and zero (0) motorists going in excess of 40 mph.

In 2010, the fixed pole camera monitoring the north bound direction of the 2100 block of Baltimore Road was decommissioned and converted to a PCU. Therefore, analysis of data for that site was not performed.

Attachment two of this report compares speed breakdowns (in 10 mph increments) by location. The locations selected for comparison were mobile camera locations and fixed pole camera locations that were established at the start of the program. There is a break in time between these two tables. The break (October 1, 2009) represents when Senate Bill 277 went into effect. One of the more prominent successes of the photo enforcement program can be seen by the drastic reduction in motorists exceeding the speed limit by more than 20 mph. In addition, the fact that no motorist was recorded in excess of 40 mph at these sites is proof that speed monitoring systems slow motorists down. Slower speeds save lives and reduce the severity of injury and property damage during motor vehicle crashes.

#### Citations Issued

There are many factors which affect how many citations are issued by a speed monitoring program. For example, a fixed pole camera can monitor speeds 24-hours/day whereas a PCU or a mobile unit typically only monitors a location for several hours at a time. The location of the fixed pole cameras also affect the number of citations that could be issued. As of October 1, 2009, the operating hours and the number of days per week that a fixed pole camera could operate in school zones were reduced. In addition, mobile units are more visible than PCU's. Other factors to consider are the number of cameras in a program, the number and type of roads the cameras are deployed on, the number of staff members assigned to the program, and the number of hours per day that the cameras are operating.

The Rockville City Safe Speed Program changed in the following ways.

- The program started with ten (10) fixed pole camera sites. Today, there are only eight (8) fixed pole camera sites.
- Out of the eight (8) fixed pole camera locations, three (3) sites are in school zones
- Since the program started, we have added four (4) PCU's.
- In 2007, the Photo Enforcement Unit consisted of five full time employees. In 2011, the Unit is staffed with three full time employees and one part-time employee.
- The Unit covers approximately 15.5 hours per weekday, and 8.5 hours during two weekend shifts.
- During the last 20-months, the mobile vans deployed only an average of 40 hours per week. However, the PCU's were deployed an average of 250 hours per week.

During the first 20-months of the program, the Rockville City Police Department issued 148,039 citations. During the last 20-months of the program, 120,455 citations were issued. Attachment three compares the number of citations issued and the average vehicle speeds at our fixed pole locations only. Please note that the numbers on the "y" axis are not consistent between the two graphs due to the larger number of citations issued during the first 20-months. The spikes on both graphs can be attributed to the time frames that we either added more cameras or increased the number of enforcement zones.

The average vehicle speed at fixed pole camera locations during the first 20-months of the program was 23.7 mph. During the last 20-months of the program evaluation, the average vehicle speed at fixed pole camera locations was 23 mph (see Attachment 3). One of the goals of the photo speed enforcement program is to reduce motorist's speeds in residential neighborhoods and school zones. During the course of the City's Safe Speed Camera Program, the average speeds at our camera locations remain below the posted speed limits.

#### **Traffic Accidents**

The Montgomery County Police maintain records of collisions that require response or intervention by a police officer. Officers are not required to write a report for a motor vehicle collision where there are no injuries and where the vehicles can be safely driven away from the scene.

Accident data was compiled for several site locations for a one-year period prior to the implementation of the photo enforcement technology. Some locations have been monitored by fixed pole cameras since the inception of the program, while other locations are monitored by mobile cameras which have an intermittent presence – sometimes mobile cameras are parked by the side of the road, at other times, they are absent. At each camera site location, accident data was collected for a linear half-mile distance from the site. Data from pre-implementation and one-year intervals after that time are presented in attachment 4.

During the first 20-months after speed monitoring systems were installed, the cumulative number of accidents at all camera locations was reduced by 35 percent. That percentage was carried over in year three of the program. However, for unknown reasons, accidents spiked in year four, the most recent year that we had data for. The increase in the number of accidents at these locations could not be immediately determined and it is unknown what the contributing factor(s) were (i.e., weather, distracted driving, the effects of Senate Bill 277, etc.). The severity of the accidents is also unknown. There have been no fatal accidents reported at any of our photo enforcement sites since the Safe Speed Program began.

While there was an increase in the total number of accidents since the Safe Speed Program began, there have been some individual site location success stories. One such location was in the 700-900 blocks of Twinbrook Parkway. Prior to the implementation of speed monitoring devices, this section of roadway recorded 16 accidents in a one-year time period. After the first year of speed cameras in that area, the accident rate was reduced to nine (9) accidents. During the last comparable time frame, there were only five (5) accidents reported. The almost 69% reduction in the number of accidents since the program first started may be contributed to the fact that a fixed pole camera became operational in June 2009. Fixed pole cameras on residential streets are able to operate 24 hours per day. With continuous monitoring and enforcement, motorists' speeds tend to be slower at all times and this may contribute to the lower number of accidents requiring police intervention.

#### **Speed Camera Revenue**

The City of Rockville continues to follow a strict interpretation of the law on how speed camera revenues can be spent. Because revenues are restricted, the City has created a special revenue fund to accurately track revenues and expenditures associated with the program. Revenues in excess of operating costs are available to enhance public safety programs and projects in both the operating budget and in the Capital Improvements Program (CIP) budget.

During the first 20-months of the program, the Speed Camera Fund supported 7.0 positions (2.0 Police Officers for traffic enforcement, 4.0 Photo Enforcement Analysts, 0.5 Photo Enforcement Supervisor and 0.5 Civil Engineer for sidewalk design), as well as a pedestrian safety consultant study to assess the City of Rockville's inventory and condition of sidewalks, crosswalks and curb cuts. Under the current program, the Speed Camera Fund supports 5.5 positions (2.0 Police Officers and 3.5 Photo Enforcement Positions), the operating costs of the program, as well as ten CIP projects, which focus on pedestrian and traffic safety. Attached are three charts, which show the history of revenues and expenditures by category for the operating budget (attachment 5), as well as the actual and planned CIP funding by project (attachment 6). This information is presented for five fiscal years starting with July 1, 2006 (FY 2007 was the first year of the program) through June 30, 2011. Based on the historic data, of the \$4.8 million in net revenue generated by the program from FY 2007 through FY 2010, \$4.7 has been spent or appropriated in the CIP budget.

#### Conclusion

While this report identified significant changes in Maryland's speed camera laws, it was not meant to analyze data obtained under the provisions of the 2006 law with data obtained from the 2009 law. Instead, this report compared data submitted to the Maryland General Assembly after 20-months of the program existence. By coincidence, at the time of this report, the City had 20-months of data since the speed camera laws changed (October 1, 2009).

The City of Rockville's Safe Speed Program has been very effective in lowering the average speed of vehicles while at the same time reducing the number of vehicles speeding on City roadways. The average speeds of vehicles monitored by our fixed pole cameras still remain below the posted speed limits. In addition, we have reduced to zero the number of motorists who once exceeded our speed limits by 40 mph or more; and we have sharply curtailed the number of motorists exceeding the speed limit by 20 mph or more. Even though the City has increased the number of enforcement sites and speed monitoring systems in the program, the total number of citations issued has decreased. While this decrease may be attributed to the changes in the law, a great number of motorists have actually modified their driving behavior and are complying with the posted speed limits. Although there has been an increase in accidents, it was not discernable as to what, if any, the contributing factors were or the severities of injuries

were in these accidents. On a positive note, there were no fatal accidents within a half mile radius of locations monitored by our speed cameras.

By creating a special revenue account for the Safe Speed Program, program finances are easily available for review which enhances public confidence. The account also allows efficient and ongoing management of the program. Due to decreased revenues, the City has reduced the personnel costs associated with the program. The City continues to enhance public safety programs and projects with the net revenues of the program.

There are many people to recognize for the success of the Safe Speed Program. The Rockville Mayor and Council have strongly advocated for increased pedestrian and public safety. Motorists driving on our roadways have changed their driving behavior and have made our roads safer. In addition, the many City employees, from multiple departments and divisions, really make this program highly successful.

#### Attachment 1 Rockville Safe Speed Program Camera Site Location Data

					School Zone		
					or	Fixed,	
Location			Speed	Number	Residential	Mobile or	Active
#	Road Name	Direction	Limit	of Lanes	District?	PCU?	date

#### **Mobile Sites**

2001 2002 2011 2012 2013 2014 2021 2022 2023 2024 2031 2032 2033	700 Blk Twinbrook Pkwy 500 Blk Great Falls Rd 400 Blk Twinbrook Pkwy 700 Blk Twinbrook Pkwy 600 Blk Nelson Street 600 Blk Nelson Street 200 Blk Nelson Street 400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road 800 Blk College Pkwy	N/b S/b N/b S/b E/b W/b N/b S/b	25 30 25 25 25 25 25 25 25 25	1 1 1 1 1 1	Residential Residential Residential Residential Residential Residential	Mobile Mobile Mobile Mobile Mobile	3/12/2007 3/12/2007 3/12/2007 3/12/2007 3/12/2007
2011 2012 2013 2014 2021 2022 2023 2024 2031 2032	400 Blk Twinbrook Pkwy 700 Blk Twinbrook Pkwy 600 Blk Nelson Street 600 Blk Nelson Street 200 Blk Nelson Street 400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road	N/b S/b E/b W/b N/b	25 25 25 25 25 25	1 1 1 1	Residential Residential Residential	Mobile Mobile	3/12/2007 3/12/2007
2012 2013 2014 2021 2022 2023 2024 2031 2032	700 Blk Twinbrook Pkwy 600 Blk Nelson Street 600 Blk Nelson Street 200 Blk Nelson Street 400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road	S/b E/b W/b N/b S/b	25 25 25 25 25	1 1 1	Residential Residential	Mobile	3/12/2007
2013 2014 2021 2022 2023 2024 2031 2032	600 Blk Nelson Street 600 Blk Nelson Street 200 Blk Nelson Street 400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road	E/b W/b N/b S/b	25 25 25	1 1	Residential		
2014 2021 2022 2023 2024 2031 2032	600 Blk Nelson Street 200 Blk Nelson Street 400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road	W/b N/b S/b	25 25	1	<b>-</b>	Mobile	3/12/2007
2021 2022 2023 2024 2031 2032	200 Blk Nelson Street 400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road	N/b S/b	25	<del>                                     </del>	Residential		
2022 2023 2024 2031 2032	400 Blk Twinbrook Pkwy 400 Blk College Pkwy 300 Blk Baltimore Road	S/b	<del></del>	1		Mobile	3/12/2007
2023 2024 2031 2032	400 Blk College Pkwy 300 Blk Baltimore Road		25	<del> </del>	Residential	Mobile	3/12/2007
2024 2031 2032	300 Blk Baltimore Road	E/b	<del></del>	11	Residential	Mobile	3/12/2007
2031 2032	· · · · · · · · · · · · · · · · · · ·		25	1	Residential	Mobile	3/12/2007
2032	800 Blk College Pkwy	W/b	25	1	Residential	Mobile	3/12/2007
<del></del>	000 200 0000000000000000000000000000000	N/b	25	1	Residential	Mobile	3/12/2007
2033	500 Blk Mt. Vernon Place	S/b	25	1	Residential	Mobile	3/12/2007
	300 Blk Baltimore Road	E/b	25	1	Residential	Mobile	3/12/2007
2034	600 Blk Rollins Avenue	W/b	25	1	Residential	Mobile	3/12/2007
2041	1000 Blk First Street	N/b	25	1	Residential	Mobile	3/12/2007
2042	1000 Blk Gaither Road	S/b	30	1	Residential	Mobile	3/12/2007
2043	600 Blk Rollins Avenue	E/b	25	1	Residential	Mobile	3/12/2007
2051	500 Blk Mt. Vernon Place	N/b	25	1	Residential	Mobile	3/12/2007
2081	2100 Blk Wootton Pkwy	N/b	25	1	School Zone	Mobile	3/30/2007
2100	2900 Blk Glenora Lane	N/b	25	1	Residential	Mobile	1/5/2009
2101	2800 Blk Glenora Lane	S/b	25	1	Residential	Mobile	1/5/2009
2102	400 Blk Hurley Avenue	N/b	25	1	Residential	Mobile	1/5/2009
2103	400 Blk Hurley Avenue	S/b	25	1	Residential	Mobile	1/5/2009
2104	1400 Blk Gerard Street	N/b	25	1	Residential	Mobile	1/5/2009
2105	1400 Blk Gerard Street	S/b	25	1	Residential	Mobile	1/5/2009
2106	1500 Blk Dunster Road	E/b	25	1	Residential	Mobile	1/5/2009
2107	1500 Blk Dunster Road	W/b	25	1	Residential	Mobile	1/5/2009
2108	1700 Blk Sunrise Drive	N/b	25	1	Residential	Mobile	1/5/2009
2109	1700 Blk Sunrise Drive	S/b	25	1	Residential	Mobile	1/5/2009
2110	700 Blk Cabin John Pkwy	N/b	25	1	Residential	Mobile	1/5/2009
	700 Blk W. Edmonston Drive	W/b	25	1	Residential	Mobile	1/5/2009
	200 Blk W. Edmonston Drive	E/b	25	1	Residential	Mobile	1/5/2009
	00 Blk W. Edmonston Drive	W/b	25	1	Residential	Mobile	1/5/2009
	1200 Blk Edmonston Drive	E/b	25	1	Residential	Mobile	1/5/2009
	1200 Blk Edmonston Drive	W/b	25	1	Residential	Mobile	1/5/2009
2117	500 Blk Edmonston Drive	N/b	25	1	Residential	Mobile	1/5/2009
2118	300 Blk Edmonston Drive	W/b	25	1	Residential	Mobile	1/5/2009
2119	1000 Blk Grandin Avenue	S/b	25	1	Residential	Mobile	1/5/2009
2120	1100 Blk Grandin Avenue	N/b	25	1	Residential	Mobile	1/5/2009
2121	1300 Blk Grandin Avenue	S/b	25	1	Residential	Mobile	1/5/2009
2122	300 Blk Broadwood Drive	N/b	25	1	Residential	Mobile	1/5/2009
2123	300 Blk Broadwood Drive	S/b	25	1	Residential	Mobile	1/5/2009

					School Zone or	Fixed.	
Location #	Road Name	Direction	Speed Limit	Number of Lanes	Residential	THE RESIDENCE OF THE PARTY OF T	Active date

#### **Mobile Sites Continued**

2124	1200 Blk Broadwood Drive	N/b	25	1	Residential	Mobile	1/5/2009
2125	1500 Blk Broadwood Drive	S/b	25	1	Residential	Mobile	1/5/2009
2126	12000 Blk Ardennes Avenue	S/b	25	1	Residential	Mobile	1/5/2009
2127	13000 Blk Ardennes Avenue	S/b	25	1	Residential	Mobile	1/5/2009
2128	500 Blk Fallsgrove Drive	E/b	25	1	Residential	Mobile	1/5/2009
2129	500 Blk Fallsgrove Drive	W/b	25	1	Residential	Mobile	1/5/2009
2132	Unit Blk Mannakee Street	S/b	25	1	School Zone	Mobile	1/5/2009
2133	500 Blk Mannakee Street	N/b	25	1	Residential	Mobile	1/5/2009
2134	600 Blk Mannakee Street	S/b	25	1	Residential	Mobile	1/5/2009
2135	300 Blk Martins Lane	E/b	25	1	School Zone	Mobile	1/5/2009
2136	300 Blk Martins Lane	W/b	25	1	School Zone	Mobile	1/5/2009
2137	500 Blk Mannakee Street	S/b	25	1	Residential	Mobile	1/5/2009
2138	Unit Blk Mannakee Street	N/b	25	111	School Zone	Mobile	1/5/2009

#### **Fixed Pole Sites**

2052	2100 Blk Baltimore Rd	S/b	25	1	School Zone	Fixed Pole	9/4/2007
2071	2100 Blk Baltimore Rd	N/b	25	1	School Zone	Fixed Pole	9/4/2007
2091	2200 Blk Wootton Pkwy	N/b	25	1	School Zone	Fixed Pole	9/4/2007
2092	2200 Blk Wootton Pkwy	S/b	25	1	School Zone	Fixed Pole	9/4/2007
2053	500 Blk W. Montgomery Ave	E/b	30	1	Residential	Fixed Pole	4/12/2008
2044	400 Blk W. Montgomery Ave	W/b	30	1	Residential	Fixed Pole	4/12/2008
2201	500 Blk Redland Blvd	W/b	30	1	Residential	Fixed Pole	6/19/2009
2202	550 Blk Redland Blvd	E/b	30	1	Residential	Fixed Pole	6/19/2009
2203	600 Blk Great Falls Rd	N/b	30	1	Residential	Fixed Pole	6/19/2009
2204	700 Blk Twinbrook Pkwy	N/b	25	1	Residential	Fixed Pole	6/19/2009

#### **Portable Camera Unit Sites**

2500	400 Blk Twinbrook Pkwy	S/b	25	1	Residential	PCU	4/5/2010
2509	600 Blk Twinbrook Pkwy	N/b	25	1	Residential	PCU	4/5/2010
2502	400 Blk W. Montgomery Ave	E/b	30	1	Residential	PCU	4/5/2010
2510	600 Blk W. Montgomery Ave	W/b	30	1	Residential	PCU	4/5/2010
2503	Unit Blk Mannakee St	S/b	25	1	Residential	PCU	4/5/2010
2504	Unit Blk Mannakee St	N/b	25	1	Residential	PCU	4/5/2010
2514	500 Blk Mannakee St	S/b	25	1	Residential	PCU	4/5/2010
2515	500 Blk Mannakee St	N/b	25	1	Residential	PCU	4/5/2010
2505	200 Blk Nelson St	S/b	25	1	Residential	PCU	8/5/2010
2506	200 Blk Nelson St	N/b	25	1	Residential	PCU	4/5/2010
2518	600 Blk Nelson St	E/b	25	1	Residential	PCU	4/5/2010
2519	600 Blk Nelson St	W/b	25	1	Residential	PCU	4/5/2010

					School Zone		
					or	Fixed,	
Location			Speed	Number	Residential	Mobile or	Active
#	Road Name	Direction	Limit	of Lanes	District?	PCU?	date

#### Portable Camera Unit Sites - Continued

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1000 Blk First St	S/b	25	1	Residential	PCU	4/5/2010
1000 Blk Gaither Rd	S/b	30	2	Residential	PCU	8/5/2010
700 Blk College Pkwy	S/b	25	1	Residential	PCU	4/5/2010
600 Blk College Pkwy	S/b	25	1	Residential	PCU	4/5/2010
600 Blk College Pkwy	N/b	25	1	Residential	PCU	4/5/2010
300 Blk Redland Blvd	E/b	30	2	Residential	PCU	5/28/2010
400 Blk Redland Blvd	W/b	30	2	Residential	PCU	8/5/2010
9500 Blk Veirs Dr	E/b	25	1	Residential	PCU	5/28/2010
9500 Blk Veirs Dr	W/b	25	1	Residential	PCU	5/28/2010
1200 Blk Edmonston Dr	W/b	25	1	Residential	PCU	8/5/2010
700 Blk Cabin John Pkwy	S/b	25	1	Residential	PCU	5/28/2010
14000 Blk Avery Rd	N/b	25	1	School Zone	PCU	4/5/2010
2000 Blk Baltimore Rd	N/b	25	1	Residential	PCU	8/5/2010
600 Blk Great Falls Rd	S/b	30	1	Residential	PCU	5/28/2010
500 Blk Fallsgrove Drive	E/b	30	1	Residential	PCU	3/17/2011
500 Blk Fallsgrove Drive	W/b	30	1	Residential	PCU	3/17/2011
400 Blk Hurley Avenue	N/b	25	1	Residential	PCU	3/17/2011
1500 Blk Dunster Road	E/b	25	1	School Zone	PCU	3/17/2011
1500 Blk Dunster Road	W/b	25	1	School Zone	PCU	3/17/2011
14000 Blk Avery Rd	S/b	25	1	School Zone	PCU	3/17/2011
	1000 Blk Gaither Rd 700 Blk College Pkwy 600 Blk College Pkwy 600 Blk College Pkwy 300 Blk Redland Blvd 400 Blk Redland Blvd 9500 Blk Veirs Dr 9500 Blk Veirs Dr 1200 Blk Edmonston Dr 700 Blk Cabin John Pkwy 14000 Blk Avery Rd 2000 Blk Baltimore Rd 600 Blk Great Falls Rd 500 Blk Fallsgrove Drive 500 Blk Hurley Avenue 1500 Blk Dunster Road	1000 Blk Gaither Rd 700 Blk College Pkwy S/b 600 Blk College Pkwy S/b 600 Blk College Pkwy N/b 300 Blk Redland Blvd 400 Blk Redland Blvd 9500 Blk Veirs Dr 9500 Blk Veirs Dr W/b 1200 Blk Edmonston Dr 700 Blk Cabin John Pkwy S/b 14000 Blk Avery Rd N/b 2000 Blk Baltimore Rd N/b 500 Blk Great Falls Rd S/b 500 Blk Fallsgrove Drive 400 Blk Hurley Avenue N/b 1500 Blk Dunster Road W/b	1000 Blk Gaither Rd         S/b         30           700 Blk College Pkwy         S/b         25           600 Blk College Pkwy         S/b         25           600 Blk College Pkwy         N/b         25           300 Blk Redland Blvd         E/b         30           400 Blk Redland Blvd         W/b         30           9500 Blk Veirs Dr         E/b         25           9500 Blk Veirs Dr         W/b         25           1200 Blk Edmonston Dr         W/b         25           700 Blk Cabin John Pkwy         S/b         25           14000 Blk Avery Rd         N/b         25           2000 Blk Baltimore Rd         N/b         25           600 Blk Great Falls Rd         S/b         30           500 Blk Fallsgrove Drive         E/b         30           500 Blk Fallsgrove Drive         W/b         30           400 Blk Hurley Avenue         N/b         25           1500 Blk Dunster Road         E/b         25           1500 Blk Dunster Road         W/b         25	1000 Blk Gaither Rd         S/b         30         2           700 Blk College Pkwy         S/b         25         1           600 Blk College Pkwy         S/b         25         1           600 Blk College Pkwy         N/b         25         1           300 Blk Redland Blvd         E/b         30         2           400 Blk Redland Blvd         W/b         30         2           9500 Blk Veirs Dr         E/b         25         1           9500 Blk Veirs Dr         W/b         25         1           1200 Blk Edmonston Dr         W/b         25         1           700 Blk Cabin John Pkwy         S/b         25         1           14000 Blk Avery Rd         N/b         25         1           2000 Blk Baltimore Rd         N/b         25         1           600 Blk Great Falls Rd         S/b         30         1           500 Blk Fallsgrove Drive         E/b         30         1           400 Blk Hurley Avenue         N/b         25         1           1500 Blk Dunster Road         E/b         25         1           1500 Blk Dunster Road         W/b         25         1	1000 Blk Gaither Rd S/b 30 2 Residential 700 Blk College Pkwy S/b 25 1 Residential 600 Blk College Pkwy S/b 25 1 Residential 600 Blk College Pkwy N/b 25 1 Residential 300 Blk Redland Blvd E/b 30 2 Residential 400 Blk Redland Blvd W/b 30 2 Residential 9500 Blk Veirs Dr E/b 25 1 Residential 9500 Blk Veirs Dr W/b 25 1 Residential 1200 Blk Edmonston Dr W/b 25 1 Residential 700 Blk Cabin John Pkwy S/b 25 1 Residential 14000 Blk Avery Rd N/b 25 1 Residential 600 Blk Great Falls Rd S/b 30 1 Residential 500 Blk Fallsgrove Drive E/b 30 1 Residential 500 Blk Fallsgrove Drive W/b 30 1 Residential 500 Blk Dunster Road E/b 25 1 School Zone	1000 Blk Gaither Rd S/b 30 2 Residential PCU 700 Blk College Pkwy S/b 25 1 Residential PCU 600 Blk College Pkwy S/b 25 1 Residential PCU 600 Blk College Pkwy N/b 25 1 Residential PCU 300 Blk Redland Blvd E/b 30 2 Residential PCU 400 Blk Redland Blvd W/b 30 2 Residential PCU 9500 Blk Veirs Dr E/b 25 1 Residential PCU 9500 Blk Veirs Dr W/b 25 1 Residential PCU 1200 Blk Edmonston Dr W/b 25 1 Residential PCU 700 Blk Cabin John Pkwy S/b 25 1 Residential PCU 14000 Blk Avery Rd N/b 25 1 Residential PCU 2000 Blk Baltimore Rd N/b 25 1 Residential PCU 500 Blk Great Falls Rd S/b 30 1 Residential PCU 500 Blk Fallsgrove Drive E/b 30 1 Residential PCU 500 Blk Fallsgrove Drive E/b 30 1 Residential PCU 500 Blk Fallsgrove Drive W/b 30 1 Residential PCU 500 Blk Hurley Avenue N/b 25 1 Residential PCU 1500 Blk Dunster Road E/b 25 1 School Zone PCU

# Attachment 2 Rockville Safe Speed Program Speed Breakdown by Location

Table 1.1 - March 2007 to September 2009

Mobile Locations	11 to 19 MPH Over posted	20 to 29 MPH Over mated	30 to 39 MPH Over posted	40 + MPH Over masted	Total over
TROUTE LACATIONS	speed limit	speed limit	speed limit	speed limit	limit
Baltunore Rd (300-500 block)	2,308	18	£	0	2,392
College Parkway near College Gardens Park (400-50) block)	35	c	c	c	166
College Parkway (800-900 blocks)	175	47	3	, 0	1 341
First Street near Maryvale Elementary School (900-1000 blocks)	153	. 0	0	0	153
Oaither Road north of King Farm Boulevard (1000 block)	3,205	114	3	0	3.322
Oreat Falls Road near Julius West Middle School (400-500 blocks)	4.84	142			4.987
Mt. Vernon Place near Richard Montgomery H.S. (400-506 blks)	720	25		0	746
Netson Street north of W. Montgomery Avenue (100-200 block)	10,865	392	9		11.264
Naison Street near Madison Street (500- 600 blocks)		135		0	4.944
Rollins Averuse near Woods Park (600 block)		31	0	0	1.023
Twinbrook Parkway near Meadow Hall Elementary School (700-900 blocks)	2,105	51	0	0	2,156
Twinbrook Pkwy near Carl Sandburg Learning Certer (400 block)	2,337	87		0	2,386
TOTAL	33,830	1,066	22	7	34,920

Table 2.1 - October 2009 to May 2011

Mobile Locations	12 to 19 MPH** 20 to 29 MPH 30 to 39 MPH Over posted Over posted Over posted crosed limit	20 to 29 MPH Over posted	Over posted Over posted Over posted	40 + MPH Over posted	Total over posted speed	Percent Difference blwn
Baltimora Rd (300-500 block)	303	_	,	0	807	800
(mar)	200		*	>	004	0/1/2
College Parkway near College Gardens Park (400-500 block)	2	0	0	0	1	-98.72%
College Parkway (800-900 blocks)	682	29	0	0	711	*68.87
First Street near Mary vale Elementary						
School (900-1000 blocks)	10	0	0	0	10	-93.46%
Gaither Road north of King Farm Boulevard (1000 block)	67	n	0	0	70	%6876-
Great Falls Road near Julius West Middle						
School (400-500 blocks)	97	\$	0	0	102	-97.95%
Mt. Vernon Place near Richard					**************************************	
Montgomery H.S. (400-500 blks)	158	٢	0	0	165	.77.88%
Nelson Street north of W. Montgomery						
Avenue (100-200 blks)	2,952	125	۳,	0	3,080	-72.66%
Nelson Street near Madison Street (500-						
600 blocks)	1,167	\$\$	_	0	1,223	-75.26%
Rolling Avenue near Woods Park (600						
block)	929	35	-	0	965	-5.67%
Twinbrook Pkwy near Meadow Hall						
Elementary School (700-900 blocks)	9	0	0	0	9	%27.66-
Twinbrook Pkwy near Carl Sandburg						
Learning Center (400 block)	584	24	0	0	809	-74.52%
TOTAL	7,047	967	7	0	7,350	-78.95%

Table 1.2 - March 2007 to September 2009

Lable 1.4 - March 2007 to September 2007	5003						Table 2.2 - October 2009 to May
Fixed Pote Locations	11 to 19 MPH Over posted speed limit	11 to 19 MPH 20 to 29 MPH 30 to 39 MPH 40 + MPH Over posted Over posted Over posted speed limit speed limit speed limit	30 to 19 MPH 40 + MPH Over posted Speed limit speed limit	40 + MPH Over posted speed limit	11 to 19 MPH 20 to 29 MPH 30 to 39 MPH 40 + MPH 9% Of Vehicles Over posited Over posited Over posited over posited speed limit speed limit speed limit speed limit	Vehicle Passes	Fixed Pote Locations
Baltimore Rd N/B & S/B (2100 block)	54,834	1,720	29	7	1.10%	5,152,907	Baltimore Rd S/B (2100 block)
West Montgomery Avenue E/B & W/B (400-600 blocks)	15,841	427	29	۲	0.18%	9,092,719	West Montgomery Avenue B/W/B (400-600 blocks)
Wooton Pkwy N/B & S/B (2190 block)	49,628	2,080	78	25	0.85%	6,062,598	Wooten Pkwy N/B & S/B block)
Rediand Blvd E/B & W/B(500-550 Blk)*	3,223	62		0	0.31%	1,055,980	Rediand Blvd E/B & W/B (500-550
Creat Falls Road N/B (600 block)*	2,619	94	0	0	%6S'0	453,468	Great Falls Road WB (600 block)
Twinbrook Pkwy N/B (700 block)*	2,055	B	.com	0	0.42%	503,770	Twinbrook Pkwy N/B (700 block)
TOTAL	128,200	4,395	138	39	0.59%	22,321,442	TOTAL

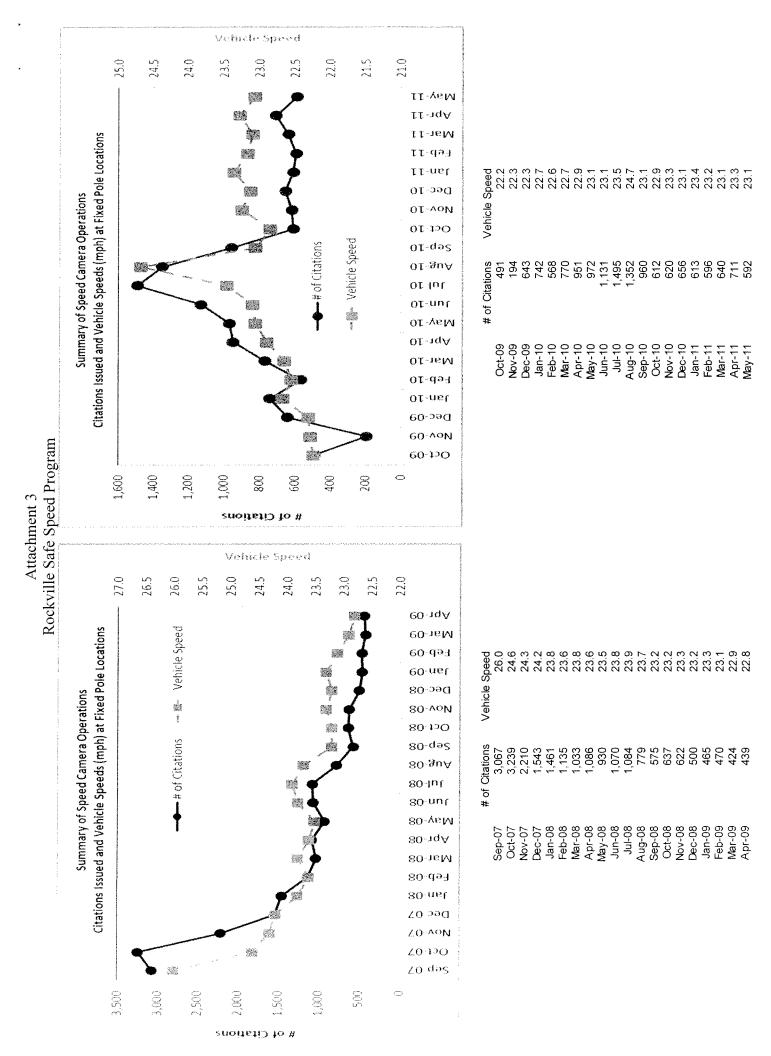
Table 2.2 - October 2009 to May 2011

nicle 15es	Fixed Pole Locations	12 to 19 MPH** 20 to 29 MPH 30 to 39 MPH 40 + MPH % Of Vehicles Over posted Over posted Over posted Over posted speed limit speed limit speed limit speed limit	20 to 29 MPH Over posted speed limit	Over posted Over posted Over posted speed limit speed limit	40 + MPH Over posted speed limit	% Of Vehicles over posted speed limit	Vehicle Passes	
2,907	Baltimore Rd S/B (2100 block)	4,286	66	0	0	0.23%	1,878,770	
2,719	West Montgomery Avenue E/B & W/B (400-600 blocks)	5,128	187	01	0	0.05%	11,115,795	
2,598	Wooton Pkwy N/B & S/B (2100 block)	4,293	164		0	0.14%	3,229,181	
5,980	Rediand Blvd E/B & W/B (500-550 Blk)	3,373	113	0	0	0.12%	2,977,602	
894,	Great Falls Road WB (600 block)	3,703	77		0	0.17%	2,259,464	
,770	Twinbrook Pkwy N/B (700 block)	3,675	157	\$	0	0.16%	2,325,712	
1,442	TOTAL	24,458	797	17	0	0.11%	23,786,524	

\*\*Senate Bill 277 (October 1, 2009) increased the speed threshold for issuing a citation from 10 mph to 12 mph over the posted

<sup>\*</sup> Began 24 hr deployment June 2009

Table 1- Data pnor to Senate Bill 277 being enacted.



#### Attachment 4 Rockville Safe Speed Program Accidents by Location

Table 3.1 - Locations Added March 2007 to May 2011

Location	May 1, 2006 – April 30, 2007	May 1, 2007 – April 30, 2008	May 1, 2008 - April 30, 2009	May 1, 2009 - April 30, 2010	May 1, 2010 - April 30, 2011
Baltimore Rd (2100 block)	6	1	2	1	3
Baltimore Rd (300-500 block)	2	4	5	3	3
College Parkway near College Gardens Park (400-500 block)	1	1	0	1	4
College Parkway (800-900 blocks)	2	0	0	1	1
First Street near Maryvale Elementary School (900-1000 blocks)	0	1	0	3	6
Gaither Road north of King Farm Boulevard (1000 block)	5	4	4	3	6
Great Falls Road near Julius West Middle School (400-500 blocks)	6	9	2	1	6
Mt. Vernon Place near Richard Montgomery High School (400-500 blocks)	4	2	0	2	3
Nelson Street north of W. Montgomery Avenue (100-200 block)	0	0	1	1	4
Nelson Street near Madison Street (500-600 blocks)	0	3	2	1	2
Rollins Avenue near Montrose Park (600 block)	2	4	1	3	4
Twinbrook Parkway near Meadow Hall Elementary School (700-900 blocks)	16	9	6	7	5
Twinbrook Parkway near Carl Sandburg Learning Center (400 blocks)	4	5	5	2	7
West Montgomery Avenue E/B of I-270 (400-600 blocks)	4	7	5	9	13
West Montgomery Avenue W/B of I-270 (400-600 blocks)	7	4	7	5	5
Wooton Pkwy (2100 block)	9	2	4	1	3

TOTAL 68 56 44 44 75

Table 3.2 - Locations Added After April 2010

Location	1 * '	May 1, 2007 – April 30, 2008	1 * '	May 1, 2009 - April 30, 2010	May 1, 2010 - April 30, 2011
Avery Rd (14000 block)	1 1	4	2	ı	2
Redland Blvd (300 - 550 block)	6	3	9	6	8
Viers Drive (9500 block)	0	0	0	0	1

TOTAL 7 7 9 7 11

### Attachment 5 Rockville Safe Speed Program Revenue and Expenditures

#### Operating - Speed Camera Fund Revenues / Sources

Total Revenues / Sources	81,991	4,061,034	2,777,447	1,963,075	2,132,000
Interest Income / Other	-	24,470	20,984	2,040	5,000
Speed Camera Citations	81,991	4,036,564	2,756,463	1,961,035	2,127,000
	Actual FY07	Actual FY08	Actual FY09	Actual FY10	Modified FY11

#### **Operating - Speed Camera Fund Expenditures**

	Actual FY07	Actual FY08	Actual FY09	Actual FY10	Modified FY11
Personnel	48,760	158,322	343,530	443,024	395,990
Contract Services	38,149	1,336,167	959,476	612,462	1,089,840
Commodities	2,115	4,258	22,470	32,890	11,720
Other	18,855	-	61,549	2,337	222,320
Total Operating Expenditures	107,879	1,498,747	1,387,025	1,090,713	1,719,870

#### Attachment 6 Rockville Safe Speed Program Capital Improvement Programs

#### CIP - Speed Camera Fund Expenditures and Planned Appropriations

	Actual FY07	Actual FY08	Actual FY09	Actual FY10	Modified FY11
Accessible Pedestrian Signals	-	-	-	51,506	698,494
Battery Back-Up Systems	44	-	•	_ :	210,000
Bridge Rehabilitation		-	-	-	733,000
Illuminated Street Signs	_	-	-	1,990	1,960
Pedestrian Bikeway System Improv.	-	-	-	103,685	672,183
Pedestrian Safety	-	_		255,850	384,150
Sidewalks	-	_	-	194,394	545,606
Street Lighting Improvements	_	_	_	87,703	412,297
Traffic Controls: Citywide		-	_	15,323	184,677
Vehicles for City Use		**	:	101,710	4,497
otal CIP Expenditures	-	-	-	812,161	3,846,864